INDEX TO AUTHORS

ABBOTT, J. See CHACKO, ABBOTT, HOLTZER, and HOLTZER, 417

ABDOU, NABIH I., and RICHTER, MAXWELL. Cells involved in the immune response. X. The transfer of antibody-forming capacity to irradiated rabbits by antigen-reactive cells isolated from normal allogeneic rabbit bone marrow after passage through antigen-sensitized glass bead columns, 141

— and —. XI. Identification of the antigen-reactive cell as the tolerant cell in the immunologically tolerant rabbit, 165

—, ROSE, BRAM, and RICHTER, MAXWELL. Cells involved in the immune response. VIII. The relationship between the loss and reappearance of antigen-reactive cells and immune responsiveness after irradiation of normal adult rabbits, 867

ACCINNI, L. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203

ALPERT, PAUL F. See HAYS and ALPERT, 847

AMBROSE, CHARLES T. Regulation of the secondary antibody response in vitro. Enhancement by actinomycin D and inhibition by a macromolecular product of stimulated lymph node cultures, 1003

ANDRES, G. A. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203

AOKI, TADAO, HÄMMERLING, ULRICH, DE HARVEN, ETIENNE, BOYSE, EDWARD A., and OLD, LLOYD J. Antigenic structure of cell surfaces. An immunoferritin study of the occurrence and topography of H-2, θ, and TL alloantigens on mouse cells, 979

AUSTEN, K. FRANK. See GIGLI and AUSTEN, 833

BAGLIONI, C. See QUATTROCCHI, CIOLI, and BAGLIONI, 401

BANG, BETSY G., and BANG, FREDERIK B. Experimentally induced changes in nasal mucous secretory systems and their effect on virus infection in chickens. I. Effect on mucosal morphology and function, 105

BANG, FREDERIK B., and FOARD, MARIE A. Experimentally induced changes in nasal mucous secretory systems and their effect on virus infection in chickens. II. Effects on adsorption of Newcastle disease virus, 121

—. See BANG and BANG, 105

BAZIN, H. See CRABBÉ, NASH, BAZIN, EYSSEN, and HEREMANS, 723

BECKER, ELMER L. See PEARLMAN, WARD, and BECKER, 745

BEDNÁŘ, BLAHOSLAV. See ROTTA and BEDNÁŘ, 31

BEISER, S. M. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203

BENACERRAF, BARUJ. See FOERSTER, GREEN, LAMELIN, and BENACERRAF, 1107

—. See PAUL, BENACERRAF, SISKIND, GOIDL, and REISFELD, 77

BLOTH, BJÖRN. See SVEHAG, BLOTH, and SELIGMANN, 691

BORNSTEIN, DONALD L., and WOODS, JAMES W. Species specificity of leukocytic pyrogens, 707

BOYSE, EDWARD A. See AOKI, HÄMMERLING, DE HARVEN, BOYSE, and OLD, 979

BRODY, NEIL I., and SISKIND, GREG-

ORY W. Studies on antigenic competition, 821

CEROTTINI, JEAN-CHARLES, LAMBERT, PAUL-HENRI, and DIXON, FRANK J. Comparison of the immune responsiveness of NZB and NZB × NZW F_1 hybrid mice with that of other strains of mice, 1093

CHACKO, S., ABBOTT, J., HOLTZER, S., and HOLTZER, H. The loss of phenotypic traits by differentiated cells. VI. Behavior of the progeny of a single chondrocyte, 417

CHRISTIAN, C. L. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203

CIOLI, D. See QUATTROCCHI, CIOLI, and BAGLIONI, 401

CLEM, L. W. See LESLIE and CLEM, 1337

COHEN, EDWARD P., MAJER, JAROSLAV, and FRIEDMAN, KAREN. Responses to immunization in the thymus of the adult mouse, 1161

COSTELLO, RICHARD. See DUBOS, LEE, and COSTELLO, 963

COTRAN, RAMZI S. See VENKATACHALAM, KARNOVSKY, and COTRAN, 381

CRABBÉ, P. A., NASH, D. R., BAZIN, H., EYSSEN, H., and HEREMANS, J. F. Antibodies of the IgA type in intestinal plasma cells of germfree mice after oral or parenteral immunization with ferritin, 723

CUDKOWICZ, G., SHEARER, G. M., and PRIORE, R. L. Cellular differentiation of the immune system of mice. V. Class differentiation in marrow precursors of plaque-forming cells, 481

—. See SHEARER and CUDKOWICZ, 1243

—. See SHEARER, CUDKOWICZ, and PRIORE, 467

DAGUILLARD, FRITZ, and RICHTER, MAXWELL. Cells involved in the immune response. XII. The differing responses of normal rabbit lymphoid cells to phytohemagglutinin, goat anti-rabbit immunoglobulin antiserum and allogeneic and xenogeneic lymphocytes, 1187

DAHL, L. K. See KNUDSEN, IWAI, HEINE, LEITL, and DAHL, 1353

DAUGHARTY, HARRY, HOPPER, JOHN E., MACDONALD, A. BRUCE, and NISONOFF, ALFRED. Quantitative investigations of idiotypic antibodies. I. Analysis of precipitating antibody populations, 1047

DE HARVEN, ETIENNE. See AOKI, HÄMMERLING, DE HARVEN, BOYSE, and OLD, 979

DE SOUSA, MARIA A. B., and PARROTT, DELPHINE M. V. Induction and recall in contact sensitivity. Changes in skin and draining lymph nodes of intact and thymectomized mice, 671

DE WECK, A. L. See FREY, DE WECK, GELEICK, and LERGIER, 1123

DIXON, FRANK J. See CEROTTINI, LAMBERT, and DIXON, 1093

—. See MCPHAUL and DIXON, 1395

DUBOS, RENÉ, LEE, CHI-JEN, and COSTELLO, RICHARD. Lasting biological effects of early environmental influences. V. Viability, growth, and longevity, 963

—. See LEE and DUBOS, 955

ERLANGER, B. F. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203

EYSSEN, H. See CRABBÉ, NASH, BAZIN, EYSSEN, and HEREMANS, 723

FARR, RICHARD S. See MINDEN and FARR, 931

FINKELSTEIN, RICHARD A., and LOSPALLUTO, JOSEPH J. Pathogenesis of experimental cholera. Prepara-

tion and isolation of choleragen and choleragenoid, 185
FISH, A. J. See GAJL-PECZALSKA, FISH, MEUWISSEN, FROMMEL, and GOOD, 1367
FLOCH, MARTIN H. See KHOURY, FLOCH, and HERSH, 659
FOARD, MARIE A. See BANG and FOARD, 121
FOERSTER, JOHN, GREEN, IRA, LAMELIN, JEAN-PIERRE, and BENACERRAF, BARUJ. Transfer of responsiveness to hapten conjugates of poly-L-lysine and of a copolymer of L-glutamic acid and L-lysine to lethally irradiated nonresponder guinea pigs by bone marrow or lymph node and spleen cells from responder guinea pigs, 1107
FRANKLIN, EDWARD C., and PRAS, MORDECHAI. Immunologic studies of water-soluble human amyloid fibrils. Comparative studies of eight amyloid preparations, 797
—. See PRAS, ZUCKER-FRANKLIN, RIMON, and FRANKLIN, 777
FREY, J. R., DE WECK, A. L., GELEICK, H., and LERGIER, W. The immunogenicity of dinitrophenyl amino acids, 1123
FRIEDMAN, KAREN. See COHEN, MAJER, and FRIEDMAN, 1161
FROMMEL, D. See GAJL-PECZALSKA, FISH, MEUWISSEN, FROMMEL, and GOOD, 1367

GAJL-PECZALSKA, K. J., FISH, A. J., MEUWISSEN, H. J., FROMMEL, D., and GOOD, R. A. Localization of immunologic complexes fixing β_1c (C3) in germinal centers of lymph nodes, 1367
GELEICK, H. See FREY, DE WECK, GELEICK, and LERGIER, 1123
GIGLI, IRMA, and AUSTEN, K. FRANK. Fluid phase destruction of $C2^{hu}$ by $C1^{hu}$. II. Unmasking by $C4i^{hu}$ of $\overline{C1}^{hu}$ specificity for $C2^{hu}$, 833
GLOBERSON, AMIELA. See TRAININ, SMALL, and GLOBERSON, 765
GOEBEL, WALTHER F. See TSAO and GOEBEL, 1313
GOIDL, EDMOND A. See PAUL, BENACERRAF, SISKIND, GOIDL, and REISFELD, 77
GOOD, R. A. See GAJL-PECZALSKA, FISH, MEUWISSEN, FROMMEL, and GOOD, 1367
—. See STUTMAN, YUNIS, and GOOD, 809
GOODMAN, JOEL W. See ROELANTS and GOODMAN, 557
GOTSCHLICH, EMIL C. See SWANSON, HSU, and GOTSCHLICH, 1063
GRAF, MARTIN W., and UHR, JONATHAN W. Regulation of antibody formation by serum antibody. I. Removal of specific antibody by means of immunoadsorption, 1175
GREEN, IRA. See FOERSTER, GREEN, LAMELIN, and BENACERRAF, 1107
GRISCELLI, CLAUDE, VASSALLI, PIERRE, and MCCLUSKEY, ROBERT T. The distribution of large dividing lymph node cells in syngeneic recipient rats after intravenous injection, 1427

HÄMMERLING, ULRICH. See AOKI, HÄMMERLING, DE HARVEN, BOYSE, and OLD, 979
HASKILL, J. STEPHEN. Density distribution analysis of antigen-sensitive cells in the rat, 877
HAYS, ESTHER F., and ALPERT, PAUL F. Effects of short-term epithelial reticular cell and whole organ thymus grafts in neonatally thymectomized mice, 847
HEINE, M. See KNUDSEN, IWAI, HEINE, LEITL, and DAHL, 1353
HEREMANS, J. F. See CRABBÉ, NASH, BAZIN, EYSSEN, and HEREMANS, 723
—. See MASSON, HEREMANS, and SCHONNE, 643
HERMAN, JUDITH. See SCHLOSSMAN, HERMAN, and YARON, 1031

HERSH, THEODORE. See KHOURY, FLOCH, and HERSH, 659
HIGH, GLORIA J. See WEIGLE, HIGH, and NAKAMURA, 243
HILL, JEFFREY H., and WARD, PETER A. C3 leukotactic factors produced by a tissue protease, 505
HOLTZER, H. See CHACKO, ABBOTT, HOLTZER, and HOLTZER, 417
HOLTZER, S. See CHACKO, ABBOTT, HOLTZER, and HOLTZER, 417
HOPPER, JOHN E. See DAUGHARTY, HOPPER, MACDONALD, and NISONOFF, 1047
HSU, K. C. See SEEGAL, ACCINNI, ANDRES, BEISER, CHRISTIAN, ERLANGER, and HSU, 203
—. See SWANSON, HSU, and GOTSCHLICH, 1063

IWAI, J. See KNUDSEN, IWAI, HEINE, LEITL, and DAHL, 1353

JACOBSON, E. B., and THORBECKE, G. J. The proliferative and anamnestic antibody response of rabbit lymphoid cells in vitro. I. Immunological memory in the lymph nodes draining and contralateral to the site of a primary antigen injection, 287
JATON, JEAN-CLAUDE. See MOZES, MCDEVITT, JATON, and SELA, 493
—. See MOZES, MCDEVITT, JATON, and SELA, 1263
JENSEN, JOERG A. A specific inactivator of mammalian C'4 isolated from nurse shark (*Ginglymostoma cirratum*) serum, 217
JENSEN, WALLACE N. See LESSIN, JENSEN, and PONDER, 443

KANO, KYIOCHI. See RAPAPORT, SAMPATH, KANO, MCCLUSKEY, and MILGROM, 1411
KARNOVSKY, MORRIS J. See VENKATACHALAM, KARNOVSKY, and COTRAN, 381
KHOURY, KENNETH A., FLOCH, MARTIN H., and HERSH, THEODORE. Small intestinal mucosal cell proliferation and bacterial flora in the conventionalization of the germfree mouse, 659
KINDT, T. J., and TODD, C. W. Heavy and light chain allotypic markers on rabbit homocytotropic antibody, 859
KNUDSEN, K. D., IWAI, J., HEINE, M., LEITL, G., and DAHL, L. K. Genetic influence on the development of renoprival hypertension in parabiotic rats. Evidence that a humoral hypertensinogenic factor is produced in kidney tissue of hypertension-prone rats, 1353

LAMBERT, PAUL-HENRI. See CEROTTINI, LAMBERT, and DIXON, 1093
LAMELIN, JEAN-PIERRE. See FOERSTER, GREEN, LAMELIN, and BENACERRAF, 1107
LANCE, EUGENE M. The mechanism of action of anti-lymphocyte serum. Studies of antibody eluate, 49
LARSEN, AUSTIN E. See PORTER, LARSEN, and PORTER, 575
LAWRENCE, H. S. See MARSHALL, VALENTINE, and LAWRENCE, 327
LEE, CHI-JEN, and DUBOS, RENÉ. Lasting biological effects of early environmental influences. IV. Notes on the physicochemical and immunological characteristics of an enterovirus that depresses the growth of mice, 955
—. See DUBOS, LEE, and COSTELLO, 963
LEITL, G. See KNUDSEN, IWAI, HEINE, LEITL, and DAHL, 1353
LERGIER, W. See FREY, DE WECK, GELEICK, and LERGIER, 1123
LESLIE, GERRIE A., and CLEM, L. W. Phylogeny of immunoglobulin structure and function. III. Im-

munoglobulins of the chicken, 1337
LESSIN, LAWRENCE S., JENSEN, WALLACE N., and PONDER, ERIC. Molecular mechanism of hemolytic anemia in homozygous hemoglobin C disease. Electron microscopic study by the freeze-etching technique, 443
LIEBERMAN, ROSE, and POTTER, MICHAEL. Crossing over between genes in the immunoglobulin heavy chain linkage group of the mouse, 519
LOSPALLUTO, JOSEPH J. See FINKELSTEIN and LOSPALLUTO, 185

MACDONALD, A. BRUCE. See DAUGHARTY, HOPPER, MACDONALD, and NISONOFF, 1047
MACKANESS, G. B. See TRIPATHY and MACKANESS, 1
—. See TRIPATHY and MACKANESS, 17
MAJER, JAROSLAV. See COHEN, MAJER, and FRIEDMAN, 1161
MANNI, JORGE A., and MÜLLER-EBERHARD, HANS J. The eighth component of human complement (C8). Isolation, characterization, and hemolytic efficiency, 1145
MARSHALL, WILLIAM H., VALENTINE, FRED T., and LAWRENCE, H. S. Cellular immunity in vitro. Clonal proliferation of antigen-stimulated lymphocytes, 327
MASSON, P. L., HEREMANS, J. F., and SCHONNE, E. Lactoferrin, an iron-binding protein in neutrophilic leukocytes, 643
MCCLUSKEY, ROBERT T. See GRISCELLI, VASSALLI, and MCCLUSKEY, 1427
—. See RAPAPORT, SAMPATH, KANO, MCCLUSKEY, and MILGROM, 1411
MCCULLOCH, E. A. See WORTON, MCCULLOCH, and TILL, 91
MCDEVITT, HUGH O. See MOZES, MCDEVITT, JATON, and SELA, 493
MCDEVITT, HUGH O. See MOZES, MCDEVITT, JATON, and SELA, 1263
MCLAUGHLIN, CARLA L. See SOLOMON and MCLAUGHLIN, 1295
MCPHAUL, J. J., JR., and DIXON, FRANK J. Immunoreactive basement membrane antigens in normal human urine and serum, 1395
MEUWISSEN, H. J. See GAJL-PECZALSKA, FISH, MEUWISSEN, FROMMEL, and GOOD, 1367
MICHEL, MAURICETTE. See OUDIN and MICHEL, 595
—. See OUDIN and MICHEL, 619
MILGROM, FELIX. See RAPAPORT, SAMPATH, KANO, MCCLUSKEY, and MILGROM, 1411
MINDEN, PERCY, and FARR, RICHARD S. Binding between components of the tubercle bacillus and humoral antibodies, 931
MOZES, EDNA, MCDEVITT, HUGH O., JATON, JEAN-CLAUDE, and SELA, MICHAEL. The nature of the antigenic determinant in a genetic control of the antibody response, 493
—, —, —, and —. The genetic control of antibody specificity, 1263
MÜLLER-EBERHARD, HANS J. See MANNI and MÜLLER-EBERHARD, 1145

NAKAMURA, R. M., and WEIGLE, W. O. Transfer of experimental autoimmune thyroiditis by serum from thyroidectomized donors, 263
—. See WEIGLE, HIGH, and NAKAMURA, 243
NASH, D. R. See CRABBÉ, NASH, BAZIN, EYSSEN, and HEREMANS, 723
NISONOFF, ALFRED. See DAUGHARTY, HOPPER, MACDONALD, and NISONOFF, 1047
NORTH, ROBERT J. Cellular kinetics

associated with the development of acquired cellular resistance, 299

NORTH, ROBERT J. The mitotic potential of fixed phagocytes in the liver as revealed during the development of cellular immunity, 315

OLD, LLOYD J. See AOKI, HÄMMERLING, DE HARVEN, BOYSE, and OLD, 979

OUDIN, JACQUES, and MICHEL, MAURICETTE. Idiotypy of rabbit antibodies. I. Comparison of idiotypy of antibodies against *Salmonella typhi* with that of antibodies against other bacteria in the same rabbits, or of antibodies against *Salmonella typhi* in various rabbits, 595

— and —. II. Comparison of idiotypy of various kinds of antibodies formed in the same rabbits against *Salmonella typhi*, 619

PARROTT, DELPHINE M. V. See DE SOUSA and PARROTT, 671

PAUL, WILLIAM E., BENACERRAF, BARUJ, SISKIND, GREGORY W., GOIDL, EDMOND A., and REISFELD, RALPH A. The anamnestic antibody response to type III specific pneumococcal polysaccharide, 77

PEARLMAN, DAVID S., WARD, PETER A., and BECKER, ELMER L. The requirement of serine esterase function in complement-dependent erythrophagocytosis, 745

PIERCE, CARL W. Immune responses in vitro. I. Cellular requirements for the immune response by nonprimed and primed spleen cells in vitro, 345

—. II. Suppression of the immune response in vitro by specific antibody, 365

PONDER, ERIC. See LESSIN, JENSEN, and PONDER, 443

PORTER, DAVID D., LARSEN, AUSTIN E., and PORTER, HELEN G. The pathogenesis of Aleutian disease of mink. I. In vivo viral replication and the host antibody response to viral antigen, 575

PORTER, HELEN G. See PORTER, LARSEN, and PORTER, 575

POTTER, MICHAEL. See LIEBERMAN and POTTER, 519

PRAS, MORDECHAI, ZUCKER-FRANKLIN, DOROTHEA, RIMON, ABRAHAM, and FRANKLIN, EDWARD C. Physical, chemical, and ultrastructural studies of water-soluble human amyloid fibrils. Comparative analyses of nine amyloid preparations, 777

—. See FRANKLIN and PRAS, 797

PRIORE, R. L. See CUDKOWICZ, SHEARER, and PRIORE, 481

—. See SHEARER, CUDKOWICZ, and PRIORE, 467

QUATTROCCHI, R., CIOLI, D., and BAGLIONI, C. A study of immunoglobulin structure. III. An estimate of the variability of human light chains, 401

RAMSEIER, HANSRUEDY. Quantitative studies on antigenic recognition. I. Immunological and nonimmunological parameters of the response, 1279

RAPAPORT, FELIX T., SAMPATH, ANGUS, KANO, KYIOCHI, MCCLUSKEY, ROBERT T., and MILGROM, FELIX. Immunological effects of thermal injury. I. Inhibition of spermatogenesis in guinea pigs, 1411

REISFELD, RALPH A. See PAUL, BENACERRAF, SISKIND, GOIDL, and REISFELD, 77

RICHTER, MAXWELL. See ABDOU and RICHTER, 141

—. See ABDOU and RICHTER, 165

—. See ABDOU, ROSE, and RICHTER, 867

—. See DAGUILLARD and RICHTER, 1187

RIMON, ABRAHAM. See PRAS, ZUCKER-FRANKLIN, RIMON, and FRANKLIN, 777
ROBINSON, JENNIFER O. See ZVAIFLER and ROBINSON, 907
ROELANTS, GEORGES E., and GOODMAN, JOEL W. The chemical nature of macrophage RNA-antigen complexes and their relevance to immune induction, 557
ROSE, BRAM. See ABDOU, ROSE, and RICHTER, 867
ROTTA, JIŘI, and BEDNÁŘ, BLAHOSLAV. Biological properties of cell wall mucopeptide of hemolytic streptococci, 31

SAMPATH, ANGUS. See RAPAPORT, SAMPATH, KANO, MCCLUSKEY, and MILGROM, 1411
SAUNDERS, GEORGE C. Maturation of hemolysin-producing cell clones. I. The kinetics of the induction period of an in vitro hemolysin response to erythrocyte antigen, 543
SCHLOSSMAN, STUART F., HERMAN, JUDITH, and YARON, ARIEH. Antigen recognition: in vitro studies on the specificity of the cellular immune response, 1031
SCHONNE, E. See MASSON, HEREMANS, and SCHONNE, 643
SEEGAL, B. C., ACCINNI, L., ANDRES, G. A., BEISER, S. M., CHRISTIAN, C. L., ERLANGER, B. F., and HSU, K. C. Immunologic studies of autoimmune disease in NZB/NZW F_1 mice. I. Binding of fluorescein-labeled antinucleoside antibodies in lesions of lupus-like nephritis, 203
SELA, MICHAEL. See MOZES, MCDEVITT, JATON, and SELA, 493
—. See MOZES, MCDEVITT, JATON, and SELA, 1263
SELIGMANN, MAXIME. See SVEHAG, BLOTH, and SELIGMANN, 691
SHEARER, G. M., and CUDKOWICZ, G. Distinct events in the immune response elicited by transferred marrow and thymus cells. I. Antigen requirements and proliferation of thymic antigen-reactive cells, 1243
SHEARER, G. M., CUDKOWICZ, G., and PRIORE, R. L. Cellular differentiation of the immune system of mice. IV. Lack of class differentiation in thymic antigen-reactive cells, 467
—. See CUDKOWICZ, SHEARER, and PRIORE, 481
SHIN, HYUN S., SMITH, MARY RUTH, and WOOD, W. BARRY, JR. Heat labile opsonins to pneumococcus. II. Involvement of C3 and C5, 1229
SISKIND, GREGORY W. See BRODY and SISKIND, 821
—. See PAUL, BENACERRAF, SISKIND, GOIDL, and REISFELD, 77
SMALL, MYRA. See TRAININ, SMALL, and GLOBERSON, 765
SMITH, MARY RUTH, and WOOD, W. BARRY, JR. Heat labile opsonins to pneumococcus. I. Participation of complement, 1209
—. See SHIN, SMITH, and WOOD, 1229
SOLOMON, ALAN, and MCLAUGHLIN, CARLA L. Bence Jones proteins and light chains of immunoglobulins. II. Immunochemical differentiation and classification of κ-chains, 1295
STROBER, SAMUEL. Initiation of antibody responses by different classes of lymphocytes. I. Types of thoracic duct lymphocytes involved in primary antibody responses of rats, 895
STUTMAN, OSIAS, YUNIS, EDMOND J., and GOOD, ROBERT A. Carcinogen-induced tumors of the thymus. IV. Humoral influences of normal thymus and functional thymomas and influence of postthymectomy period on restoration, 809
SVEHAG, SVEN-ERIC, BLOTH, BJÖRN, and SELIGMANN, MAXIME. Ultrastructure of papain and pepsin

digestion fragments of human IgM globulins, 691
SWANSON, JOHN, HSU, KONRAD C., and GOTSCHLICH, EMIL C. Electron microscopic studies on streptococci. I. M antigen, 1063

THORBECKE, G. J. See JACOBSON and THORBECKE, 287
TILL, J. E. See WORTON, MCCULLOCH, and TILL, 91
TODD, C. W. See KINDT and TODD, 859
TRAININ, NATHAN, SMALL, MYRA, and GLOBERSON, AMIELA. Immunocompetence of spleen cells from neonatally thymectomized mice conferred in vitro by a syngeneic thymus extract, 765
TRIPATHY, S. P., and MACKANESS, G. B. The effect of cytotoxic agents on the primary immune response to *Listeria monocytogenes*, 1
— and —. The effect of cytotoxic agents on the passive transfer of cell-mediated immunity, 17
TSAO, SHUANG-SHINE, and GOEBEL, WALTHER F. Colicin K. VIII. The immunological properties of mitomycin-induced colicin K, 1313

UHR, JONATHAN W. See GRAF and UHR, 1175

VALENTINE, FRED T. See MARSHALL, VALENTINE, and LAWRENCE, 327
VASSALLI, PIERRE. See GRISCELLI, VASSALLI, and MCCLUSKEY, 1427
VENKATACHALAM, M. A., KARNOVSKY, MORRIS J., and COTRAN, RAMZI S. Glomerular permeability. Ultrastructural studies in experimental nephrosis using horseradish peroxidase as a tracer, 381

WARD, PETER A. See HILL and WARD, 505
—. See PEARLMAN, WARD, and BECKER, 745
WEIGLE, W. O., HIGH, GLORIA J., and NAKAMURA, R. M. The role of mycobacteria and the effect of proteolytic degradation of thyroglobulin on the production of autoimmune thyroiditis, 243
—. See NAKAMURA and WEIGLE, 263
WOOD, W. BARRY, JR. See SMITH and WOOD, 1209
—. See SHIN, SMITH, and WOOD, 1229
WOODS, JAMES W. See BORNSTEIN and WOODS, 707
WORTON, R. G., MCCULLOCH, E. A., and TILL, J. E. Physical separation of hemopoietic stem cells differing in their capacity for self-renewal, 91

YARON, ARIEH. See SCHLOSSMAN, HERMAN, and YARON, 1031
YUNIS, EDMOND J. See STUTMAN, YUNIS, and GOOD, 809

ZUCKER-FRANKLIN, DOROTHEA. See PRAS, ZUCKER-FRANKLIN, RIMON, and FRANKLIN, 777
ZVAIFLER, NATHAN J., and ROBINSON, JENNIFER O. Rabbit homocytotropic antibody. A unique rabbit immunoglobulin analogous to human IgE, 907

INDEX TO SUBJECTS

ACTINOMYCIN D, enhancement of secondary antibody response in vitro, 1003
Aleutian disease, pathogenesis, in vivo viral replication and host antibody response to viral antigen, 575
Alloantigens, H-2, immunoferritin study of occurrence and topography, 979
—, θ, immunoferritin study of occurrence and topography, 979
—, TL, immunoferritin study of occurrence and topography, 979
Allogeneic bone marrow, normal, after passage through antigen-sensitized glass bead columns, transfer of antibody-forming capacity by antigen-reactive cells isolated from, 141
— lymphocytes, differing responses of normal lymphoid cells to, 1187
Allotypic markers, heavy and light chain, on homocytotropic antibody, 859
Amino acids, dinitrophenyl, immunogenicity of, 1123
Amyloid fibrils, water-soluble, immunologic studies, 797
— fibrils, water-soluble, physical, chemical, and ultrastructural studies, 777
— preparations, comparative analyses, 777
— preparations, comparative studies, 797
Anamnestic antibody response of lymphoid cells in vitro, immunological memory in lymph nodes draining and contralateral to site of primary antigen injection, 287
— antibody response to type III specific pneumococcal polysaccharide, 77
Anemia, hemolytic, molecular mechanism in homozygous hemoglobin C disease, electron microscopic study by freeze-etching technique, 443
Antibodies, antinucleoside, fluorescein-labeled, in lesions of lupus-like nephritis, binding of, 203
—, humoral, and tubercle bacillus, binding between components, 931
—, idiotypic, quantitative investigations, analysis of precipitating populations, 1047
—, idiotypy, comparison of anti-*Salmonella typhi* antibodies with antibodies against other bacteria, 595
—, idiotypy, comparison of various kinds of antibodies against *Salmonella typhi*, 619
—, IgA type, in intestinal plasma cells after oral or parenteral immunization with ferritin, 723
Antibody eluate, studies of, mechanism of action of anti-lymphocyte serum, 49
— formation, regulation by serum antibody, removal of specific antibody by immunoadsorption, 1175
—, homocytotropic, heavy and light chain allotypic markers, 859
—, homocytotropic, immunoglobulin analogous to human IgE, 907
— populations, precipitating, analysis, 1047
— response, anamnestic, to type III specific pneumococcal polysaccharide, 77

Antibody response, host, to viral antigen, 575
— response, nature of antigenic determinant in genetic control, 493
— response, proliferative and anamnestic, of lymphoid cells in vitro, immunological memory in lymph nodes draining and contralateral to site of primary antigen injection, 287
— response, secondary, regulation in vitro, enhancement by actinomycin D and inhibition by macromolecular product of stimulated lymph node cultures, 1003
— responses, initiation by different classes of lymphocytes, types of thoracic duct lymphocytes involved in, 895
—, serum, regulation of antibody formation by, removal of specific antibody by immunoadsorption, 1175
—, specific, removal by immunoadsorption, 1175
—, specific, suppression of immune response in vitro by, 365
— specificity, genetic control, 1263
Antibody-forming capacity, transfer by antigen-reactive cells isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, 141
Antigen, erythrocyte, kinetics of induction period of in vitro hemolysin response to, 543
— injection, primary, immunological memory in lymph nodes draining and contralateral to site of, 287
—, M, electron microscopic studies on streptococci, 1063
— recognition, in vitro studies on specificity of cellular immune response, 1031
— requirements and proliferation of thymic antigen-reactive cells, 1243
Antigen, viral, in vivo replication and host antibody response, 575
Antigen-reactive cell, identification as tolerant cell in immunologically tolerant rabbit, 165
— cells isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, transfer of antibody-forming capacity by, 141
— cells, relationship between loss and reappearance and immune responsiveness after irradiation, 867
— cells, thymic, antigen requirements and proliferation, 1243
— cells, thymic, lack of class differentiation, 467
Antigen–RNA complexes, chemical nature and relevance to immune induction, 557
Antigen-sensitive cells, density distribution analysis, 877
Antigen-sensitized glass bead columns, passage of normal allogeneic bone marrow and subsequent isolation of antigen-reactive cells, 141
Antigen-stimulated lymphocytes, clonal proliferation, 327
Antigenic competition, studies, 821
— determinant in genetic control of antibody response, 493
— recognition, quantitative studies, immunological and nonimmunological parameters of response, 1279
— structure of cell surfaces, immunoferritin study of occurrence and topography of H-2, θ, and TL alloantigens, 979
Antigens, basement membrane, immunoreactive, in normal urine and serum, 1395
Anti-lymphocyte serum, mechanism

of action, studies of antibody eluate, 49
Antinucleoside antibodies, fluorescein-labeled, in lesions of lupus-like nephritis, binding of, 203
Antiserum, immunoglobulin, differing responses of normal lymphoid cells, 1187
Autoimmune disease, immunologic studies in NZB/NZW F_1 mice, binding of fluorescein-labeled antinucleoside antibodies in lesions of lupus-like nephritis, 203
— thyroiditis, experimental, transfer by serum from thyroidectomized donors, 263
— thyroiditis, role of mycobacteria and effect of proteolytic degradation of thyroglobulin on production of, 243

BACILLUS, tubercle, and humoral antibodies, binding between components, 931
Bacteria, comparison of idiotypy of anti-*Salmonella typhi* antibodies with those against other bacteria, 595
Bacterial flora in conventionalization of germfree mouse, 659
Basement membrane antigens, immunoreactive, in normal urine and serum, 1395
Bence Jones proteins and light chains of immunoglobulins, immunochemical differentiation and classification of κ-chains, 1295
Binding between components of tubercle bacillus and humoral antibodies, 931
Biological properties of cell wall mucopeptide of hemolytic streptococci, 31
Bone marrow, normal allogeneic, after passage through antigen-sensitized glass bead columns, transfer of antibody-forming capacity by antigen-reactive cells isolated from, 141
Bone marrow, transfer of immune responsiveness by, 1107

CARCINOGEN-induced tumors of thymus, humoral influences of normal thymus and functional thymomas and influence of post-thymectomy period on restoration, 809
Cell, antigen-reactive, identification as tolerant cell in immunologically tolerant rabbit, 165
— clones, hemolysin-producing, maturation, kinetics of induction period of in vitro hemolysin response to erythrocyte antigen, 543
— grafts, epithelial, reticular, effects, 847
— proliferation, small intestinal mucosal, and bacterial flora in conventionalization of germfree mouse, 659
— surfaces, antigenic structure, immunoferritin study of occurrence and topography of H-2, θ, and TL alloantigens, 979
—, tolerant, in immunologically tolerant rabbit, identification of antigen-reactive cell as, 165
— wall mucopeptide of hemolytic streptococci, biological properties, 31
Cell-mediated immunity, effect of cytotoxic agents on passive transfer, 17
Cells, antigen-reactive, isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, transfer of antibody-forming capacity by, 141
—, antigen-reactive, relationship between loss and reappearance and immune responsiveness after irradiation, 867
—, antigen-sensitive, density distribution analysis, 877
—, differentiated, loss of phenotypic

traits, behavior of progeny of single chondrocyte, 417
Cells involved in immune response, differing responses of normal lymphoid cells to phytohemagglutinin, immunoglobulin antiserum, and allogeneic and xenogeneic lymphocytes, 1187
— involved in immune response, identification of antigen-reactive cell as tolerant cell in immunologically tolerant rabbit, 165
— involved in immune response, relationship between loss and reappearance of antigen-reactive cells and immune responsiveness after irradiation, 867
— involved in immune response, transfer of antibody-forming capacity by antigen-reactive cells isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, 141
—, lymph node, large, dividing, distribution after intravenous injection, 1427
—, lymph node, transfer of immune responsiveness by, 1107
—, lymphoid, in vitro, proliferative and anamnestic antibody response of, immunological memory in lymph nodes draining and contralateral to site of primary antigen injection, 287
—, lymphoid, normal, differing responses to phytohemagglutinin, immunoglobulin antiserum, and allogeneic and xenogeneic lymphocytes, 1187
—, marrow and thymus, transferred, immune response elicited by, 1243
—, plaque-forming, class differentiation in marrow precursors, 481
—, plasma, intestinal, after oral or parenteral immunization with ferritin, antibodies of IgA type in, 723
Cells, spleen, immunocompetence conferred in vitro by syngeneic thymus extract, 765
—, spleen, nonprimed and primed, in vitro, cellular requirements for immune response by, 345
—, spleen, transfer of immune responsiveness by, 1107
—, stem, hemopoietic, differing in capacity for self-renewal, physical separation, 91
—, thymic, antigen-reactive, antigen requirements and proliferation, 1243
—, thymic, antigen-reactive, lack of class differentiation, 467
Cellular differentiation of immune system, class differentiation in marrow precursors of plaque-forming cells, 481
— differentiation of immune system, lack of class differentiation in thymic antigen-reactive cells, 467
— immune response, in vitro studies on specificity, 1031
— immunity, development, mitotic potential of fixed phagocytes in liver as revealed during, 315
— immunity in vitro, clonal proliferation of antigen-stimulated lymphocytes, 327
— kinetics associated with development of acquired cellular resistance, 299
— requirements for immune response by nonprimed and primed spleen cells in vitro, 345
— resistance, acquired, cellular kinetics associated with development of, 299
Chain, heavy and light, allotypic markers on homocytotropic antibody, 859
— linkage group, heavy, crossing over between genes, 519

Chains, human, light, estimate of variability, 401
—, κ, immunochemical differentiation and classification, 1295
—, light, of immunoglobulins, immunochemical differentiation and classification of κ-chains, 1295
Cholera, experimental, pathogenesis, preparation and isolation of choleragen and choleragenoid, 185
Choleragen and choleragenoid, preparation and isolation, pathogenesis of experimental cholera, 185
Choleragenoid and choleragen, preparation and isolation, pathogenesis of experimental cholera, 185
Chondrocyte, behavior of progeny, 417
Clonal proliferation of antigen-stimulated lymphocytes, 327
Clones, cell, hemolysin-producing, maturation, kinetics of induction period of in vitro hemolysin response to erythrocyte antigen, 543
Colicin K, mitomycin-induced, immunological properties, 1313
Columns, antigen-sensitized, glass bead, passage of normal allogeneic bone marrow and subsequent isolation of antigen-reactive cells, 141
Competition, antigenic, studies, 821
Complement, β_{1c} (C3), in germinal centers of lymph nodes, localization of immunologic complexes fixing, 1367
—, $C1^{hu}$, fluid phase destruction of $C2^{hu}$, 833
—, $C\bar{1}^{hu}$, unmasking by $C4i^{hu}$ of specificity for $C2^{hu}$, 833
—, $C2^{hu}$, fluid phase destruction by $C1^{hu}$, unmasking by $C4i^{hu}$ of $C\bar{1}^{hu}$ specificity for, 833
—, C3 (β_{1c}), in germinal centers of lymph nodes, localization of immunologic complexes fixing, 1367
Complement, C3, involvement, heat labile opsonins to pneumococcus, 1229
—, C3 leukotactic factors produced by tissue protease, 505
—, C′4, mammalian, its specific inactivator isolated from nurse shark serum, 217
—, $C4i^{hu}$, unmasking of $C\bar{1}^{hu}$ specificity for $C2^{hu}$, 833
—, C5, involvement, heat labile opsonins to pneumococcus, 1229
—, C8, isolation, characterization, and hemolytic efficiency, 1145
—, human, eighth component, isolation, characterization, and hemolytic efficiency, 1145
—, participation, heat labile opsonins to pneumococcus, 1209
Complement-dependent erythrophagocytosis, requirement of serine esterase function, 745
Complexes, immunologic, fixing β_{1c} (C3), localization in germinal centers of lymph nodes, 1367
—, macrophage RNA–antigen, chemical nature and relevance to immune induction, 557
Conjugates, hapten, of poly-L-lysine, transfer of responsiveness to, 1107
Contact sensitivity, induction and recall, changes in skin and draining lymph nodes of intact and thymectomized mice, 671
Conventionalization of germfree mouse, small intestinal mucosal cell proliferation and bacterial flora, 659
Crossing over between genes in immunoglobulin heavy chain linkage group, 519
Cultures, stimulated lymph node, macromolecular product, inhibition of secondary antibody response, 1003
Cytotoxic agents, effect on passive

transfer of cell-mediated immunity, 17
Cytotoxic agents, effect on primary immune response to *Listeria monocytogenes*, 1

DEGRADATION, proteolytic, effect on production of autoimmune thyroiditis, 243
Density distribution analysis of antigen-sensitive cells, 877
Dinitrophenyl amino acids, immunogenicity of, 1123
Disease, Aleutian, pathogenesis, in vivo viral replication and host antibody response to viral antigen, 575

ELECTRON microscopic studies on streptococci, M antigen, 1063
— microscopic study of molecular mechanism of hemolytic anemia in homozygous hemoglobin C disease by freeze-etching technique, 443
Eluate, antibody, studies of, mechanism of action of anti-lymphocyte serum, 49
Enterovirus, growth-depressing, physicochemical and immunological characteristics, 955
Environmental influences, early, lasting biological effects, physicochemical and immunological characteristics of growth-depressing enterovirus, 955
— influences, early, lasting biological effects, viability, growth, and longevity, 963
Epithelial reticular cell grafts, effects, 847
Erythrocyte antigen, kinetics of induction period of in vitro hemolysin response to, 543
Erythrophagocytosis, complement-dependent, requirement of serine esterase function, 745
Esterase, serine, requirement for function in complement-dependent erythrophagocytosis, 745

FERRITIN in oral or parenteral immunization, antibodies of IgA type in intestinal plasma cells, 723
Fibrils, amyloid, water-soluble, immunologic studies, 797
— amyloid, water-soluble, physical, chemical, and ultrastructural studies, 777
Fluid phase destruction of $C2^{hu}$ by $C1^{hu}$, unmasking by $C4i^{hu}$ of $\overline{C1}^{hu}$ specificity for $C2^{hu}$, 833
Fluorescein-labeled antinucleoside antibodies in lesions of lupus-like nephritis, binding of, 203
Freeze-etching technique, electron microscopic study of molecular mechanism of hemolytic anemia in homozygous hemoglobin C disease, 443

GENES, crossing over in immunoglobulin heavy chain linkage group, 519
Genetic control of antibody response, nature of antigenic determinant, 493
— control of antibody specificity, 1263
— influence on development of renoprival hypertension, evidence that humoral hypertensinogenic factor is produced in kidney tissue, 1353
Germfree mouse, small intestinal mucosal cell proliferation and bacterial flora in conventionalization of, 659
Germinal centers of lymph nodes, localization of immunologic complexes fixing β_{1c} (C3), 1367
Glass bead columns, antigen-sensitized, passage of normal allogeneic bone marrow and subsequent isolation of antigen-reactive cells, 141
Globulins, human IgM, ultrastructure of papain and pepsin digestion fragments, 691
Glomerular permeability, ultrastructural studies in experimental ne-

phrosis using horseradish peroxidase as tracer, 381
L-glutamic acid, copolymer with L-lysine, transfer of responsiveness to lethally irradiated nonresponder guinea pigs, 1107
Grafts, reticular epithelial cells and whole organ thymus, effects, 847
Growth, depressed by enterovirus, 955
—, lasting biological effects of early environmental influences, 963

HAPTEN conjugates of poly-L-lysine, transfer of responsiveness by bone marrow or lymph node and spleen cells, 1107
Heat labile opsonins to pneumococcus, involvement of C3 and C5, 1229
— labile opsonins to pneumococcus, participation of complement, 1209
Heavy chain allotypic markers on homocytotropic antibody, 859
— chain linkage group, immunoglobulin, crossing over between genes, 519
Hemoglobin C disease, homozygous, molecular mechanism of hemolytic anemia, electron microscopic study by the freeze-etching technique, 443
Hemolysin response, in vitro, to erythrocyte antigen, kinetics of induction period, 543
Hemolysin-producing cell clones, maturation, kinetics of induction period of in vitro hemolysin response to erythrocyte antigen, 543
Hemolytic anemia, molecular mechanism in homozygous hemoglobin C disease, electron microscopic study by freeze-etching technique, 443
— streptococci, biological properties of cell wall mucopeptide, 31
Hemopoietic stem cells differing in capacity for self-renewal, physical separation, 91
Homocytotropic antibody, heavy and light chain allotypic markers, 859
— antibody, immunoglobulin analogous to human IgE, 907
Homozygous hemoglobin C disease, molecular mechanism of hemolytic anemia, electron microscopic study by freeze-etching technique, 443
Horseradish peroxidase as tracer in ultrastructural studies of experimental nephrosis, 381
Host antibody response to viral antigen, 575
Humoral antibodies and tubercle bacillus, binding between components, 931
— hypertensinogenic factor, evidence of production in kidney tissue, 1353
Hypertensinogenic factor, humoral, evidence of production in kidney tissue, 1353
Hypertension, renoprival, genetic influence on development, evidence that humoral hypertensinogenic factor is produced in kidney tissue, 1353

IDIOTYPIC antibodies, quantitative investigations, analysis of precipitating populations, 1047
Idiotypy, antibody, comparison of anti-*Salmonella typhi* antibodies against other bacteria, 595
—, antibody, comparison of various kinds of anti-*Salmonella typhi* antibodies, 619
Immune induction, relevance of macrophage RNA–antigen complexes, 557
— response, cells involved, differing responses of normal lymphoid cells to phytohemagglutinin, immunoglobulin antiserum, and allogeneic and xenogeneic lymphocytes, 1187

Immune response, cells involved, identification of antigen-reactive cell as tolerant cell in immunologically tolerant rabbit, 165
— response, cells involved, relationship between loss and reappearance of antigen-reactive cells and immune responsiveness after irradiation, 867
— response, cells involved, transfer of antibody-forming capacity by antigen-reactive cells isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, 141
— response, cellular, in vitro studies on specificity, 1031
— response elicited by transferred marrow and thymus cells, antigen requirements and proliferation of thymic antigen-reactive cells, 1243
— response in vitro, cellular requirements for, by nonprimed and primed spleen cells, 345
— response in vitro, suppression by specific antibody, 365
— response, primary, to *Listeria monocytogenes*, effect of cytotoxic agents, 1
— responsiveness, comparison of NZB and NZB × NZW F_1 mice with other strains, 1093
— system, cellular differentiation, class differentiation in marrow precursors of plaque-forming cells, 481
— system, cellular differentiation, lack of class differentiation in thymic antigen-reactive cells, 467
Immunity, cell-mediated, effect of cytotoxic agents on passive transfer, 17
—, cellular, development, mitotic potential of fixed phagocytes in liver as revealed during, 315
—, cellular, in vitro, clonal proliferation of antigen-stimulated lymphocytes, 327
Immunization, oral or parenteral, with ferritin, antibodies of IgA type in intestinal plasma cells, 723
Immunization, responses in thymus, 1161
Immunoadsorption, removal of specific antibody by, 1175
Immunocompetence of spleen cells conferred in vitro by syngeneic thymus extract, 765
Immunoferritin study of occurrence and topography of H-2, θ, and TL alloantigens, 979
Immunogenicity of dinitrophenyl amino acids, 1123
Immunoglobulin, analogous to human IgE, 907
— antiserum, differing responses of normal lymphoid cells to, 1187
— heavy chain linkage group, crossing over between genes, 519
— structure and function, phylogeny, 1337
— structure, study of, estimate of variability of human light chains, 401
Immunoglobulins, light chains, immunochemical differentiation and classification of κ-chains, 1295
Immunologic complexes fixing β_{1c} (C3), localization in germinal centers of lymph nodes, 1367
— effects of thermal injury, inhibition of spermatogenesis in guinea pigs, 1411
— studies of autoimmune disease in NZB/NZW F_1 mice, binding of fluorescein-labeled antinucleoside antibodies in lesions of lupus-like nephritis, 203
— studies of water-soluble amyloid fibrils, 797
Immunological and nonimmunological parameters of response to antigenic recognition, 1279
— characteristics of growth-depressing enterovirus, 955
— memory in lymph nodes draining and contralateral to site of primary antigen injection, 287
— properties of mitomycin-induced colicin K, 1313

Immunologically tolerant rabbit, identification of antigen-reactive cell as tolerant cell in, 165
Immunoreactive basement membrane antigens in normal urine and serum, 1395
Inactivator, specific, of mammalian C'4 isolated from nurse shark serum, 217
Induction and recall in contact sensitivity, changes in skin and draining lymph nodes of intact and thymectomized mice, 671
—, immune, relevance of macrophage RNA-antigen complexes, 557
— period of in vitro hemolysin response to erythrocyte antigen, kinetics, 543
—, virus, effect of experimentally induced changes in nasal mucous secretory systems, 105, 121
Injury, thermal, immunological effects, inhibition of spermatogenesis, 1411
Intestinal plasma cells after oral or parenteral immunization with ferritin, antibodies of IgA type in, 723
—, small, mucosal cell proliferation and bacterial flora in conventionalization of germfree mouse, 659
Intravenous injection, distribution of large, dividing lymph node cells after, 1427
Iron-binding protein, lactoferrin, in neutrophilic leukocytes, 643
Irradiated rabbits, transfer of antibody-forming capacity by antigen-reactive cells isolated from normal allogeneic bone marrow after passage through antigen-sensitized glass bead columns, 141
Irradiation, relationship between loss and reappearance of antigen-reactive cells and immune responsiveness after, 867

KIDNEY tissue, evidence of production of humoral hypertensinogenic factor, 1353
Kinetics, cellular, associated with development of acquired cellular resistance, 299
— of induction period of in vitro hemolysin response to erythrocyte antigen, 543

LACTOFERRIN, iron-binding protein in neutrophilic leukocytes, 643
Leukocytes, neutrophilic, having lactoferrin, an iron-binding protein, 643
Leukocytic pyrogens, species specificity, 707
Leukotactic factors, C3, produced by tissue protease, 505
Light chain allotypic markers on homocytotropic antibody, 859
— chains, human, estimate of variability, 401
— chains of immunoglobulins and Bence Jones proteins, immunochemical differentiation and classification of κ-chains, 1295
Linkage group, heavy chain, crossing over between genes, 519
Listeria monocylogenes, effect of cytotoxic agents on primary immune response to, 1
Liver, mitotic potential of fixed phagocytes in, as revealed during development of cellular immunity, 315
Longevity, lasting biological effects of early environmental influences, 963
Lupus-like nephritis, binding of fluorescein-labeled antinucleoside antibodies in lesions of, 203
Lymph node cells, large, dividing, distribution after intravenous injection, 1427
— node cells, transfer of immune responsiveness by, 1107
— node cultures, stimulated, macromolecular product, inhibition of secondary antibody response in vitro, 1003
— nodes, draining and contralateral

to site of primary antigen injection, immunological memory in, 287
Lymph nodes, draining, changes, induction and recall in contact sensitivity, 671
— nodes, germinal centers, localization of immunologic complexes fixing β_{1c} and C3, 1367
Lymphocytes, allogeneic and xenogeneic, differing responses of normal lymphoid cells, 1187
—, antigen-stimulated, clonal proliferation, 327
—, initiation of antibody responses by different classes, 895
Lymphoid cells in vitro, proliferative and anamnestic antibody response of, immunological memory in lymph nodes draining and contralateral to site of primary antigen injection, 287
— cells, normal, differing responses to phytohemagglutinin, immunoglobulin antiserum, and allogeneic and xenogeneic lymphocytes, 1187
L-lysine, copolymer with L-glutamic acid, transfer of responsiveness to lethally irradiated nonresponder guinea pigs, 1107

MACROPHAGE RNA–antigen complexes, chemical nature and relevance to immune induction, 557
Mammalian C'4, its specific inactivator isolated from nurse shark serum, 217
Man, light chains, estimate of variability, 401
Marrow cells, transferred, immune response elicited by, 1243
— precursors of plaque-forming cells, class differentiation, 481
Maturation of hemolysin-producing cell clones, kinetics of induction period of in vitro hemolysin response to erythrocyte antigen, 543
Memory, immunological, in lymph nodes draining and contralateral to site of primary antigen injection, 287
Microscopic studies, electron, on streptococci, M antigen, 1063
Mitomycin-induced colicin K, immunological properties, 1313
Mitotic potential of fixed phagocytes in liver as revealed during development of cellular immunity, 315
Molecular mechanism of hemolytic anemia in homozygous hemoglobin C disease, electron microscopic study by freeze-etching technique, 443
Morphology, mucosal, experimentally induced changes in nasal mucous secretory systems and effect on virus infection, 105
Mucopeptide, cell wall, of hemolytic streptococci, biological properties, 31
Mucosal cell proliferation, small intestinal, and bacterial flora in conventionalization of germfree mouse, 659
— morphology and function, experimentally induced changes in nasal mucous secretory systems and effect on virus infection, 105
Mucous secretory systems, nasal, experimentally induced changes and effect on virus infection, effect on mucosal morphology and function, 105
— secretory systems, nasal, experimentally induced changes and effect on virus infection, effects on adsorption of Newcastle disease virus, 121
Mycobacteria, role in production of autoimmune thyroiditis, 243

NASAL mucous secretory systems, experimentally induced changes and their effect on virus infection, effect on mucosal morphology and function, 105
— mucous secretory systems, experi-

mentally induced changes and effect on virus infection, effects on adsorption of Newcastle disease virus, 121
Nephritis, lupus-like, binding of fluorescein-labeled antinucleoside antibodies in lesions of, 203
Nephrosis, experimental, ultrastructural studies using horseradish peroxidase as tracer, 381
Neutrophilic leukocytes having lactoferrin, an iron-binding protein, 643
Newcastle disease virus, effects on adsorption by experimentally induced changes in nasal mucous secretory systems, 121
Nucleic acid, ribo-, complexes with antigen, macrophage, chemical nature and relevance to immune induction, 557

OPSONINS, heat labile, to pneumococcus participation of complement, 1209
—, heat labile, to pneumococcus, involvement of C3 and C5, 1229

PAPAIN digestion fragments of human IgM globulins, ultrastructure, 691
Passive transfer of cell-mediated immunity, effect of cytotoxic agents, 17
Pathogenesis of Aleutian disease, in vivo viral replication and host antibody response to viral antigen, 575
— of experimental cholera, preparation and isolation of choleragen and choleragenoid, 185
Pepsin digestion fragments of human IgM globulins, ultrastructure, 691
Permeability, glomerular, ultrastructural studies in experimental nephrosis using horseradish peroxidase as tracer, 381
Peroxidase, horseradish, as tracer in ultrastructural studies of experimental nephrosis, 381
Phagocytes, fixed, in liver, mitotic potential as revealed during development of cellular immunity, 315
Phenotypic traits, loss by differentiated cells, behavior of progeny of single chondrocyte, 417
Phylogeny of immunoglobulin structure and function, 1337
Phytohemagglutinin, differing responses of normal lymphoid cells to, 1187
Plaque-forming cells, class differentiation in marrow precursors, 481
Plasma cells, intestinal, after oral or parenteral immunization with ferritin, antibodies of IgA type in, 723
Pneumococcal polysaccharide, type III specific, anamnestic antibody response, 77
Pneumococcus, heat labile opsonins, involvement of C3 and C5, 1229
—, heat labile opsonins, participation of complement, 1209
Polysaccharide, type III specific pneumococcal, anamnestic antibody response, 77
Precipitating antibody populations, analysis, 1047
Precursors, marrow, of plaque-forming cells, class differentiation, 481
Primed spleen cells in vitro, cellular requirements for immune response by, 345
Proliferation, clonal, of antigen-stimulated lymphocytes, 327
—, small intestinal mucosal cell, and bacterial flora in conventionalization of germfree mouse, 659
Protease, tissue, C3 leukotactic factors produced by, 505
Protein, iron-binding, lactoferrin, in neutrophilic leukocytes, 643
Proteins, Bence Jones, and light chains of immunoglobulins, immunochemical differentiation and classification of κ-chains, 1295

Proteolytic degradation of thyroglobulin, effect on the production of autoimmune thyroiditis, 243
Pyrogens, leukocytic, species specificity, 707

RECALL in contact sensitivity, changes in skin and draining lymph nodes of intact and thymectomized mice, 671
Renoprival hypertension, genetic influence on development, evidence that humoral hypertensinogenic factor is produced in kidney tissue, 1353
Replication, viral, and host antibody response to viral antigen, 575
Resistance, acquired cellular, cellular kinetics associated with development of, 299
Reticular cell grafts, epithelial, effects, 847
Ribonucleic acid–antigen complexes, macrophage, chemical nature and relevance to immune induction, 557

SALMONELLA *typhi*, comparison of idiotypy of antibodies against with that of antibodies against other bacteria, 595
—, comparison of various kinds of antibodies against, 619
Secretory systems, nasal mucous, experimentally induced changes and effect on virus infection, effect on mucosal morphology and function, 105
— systems, nasal mucous, experimentally induced changes and effect on virus infection, effects on adsorption of Newcastle disease virus, 121
Sensitivity, contact, induction and recall, changes in skin and draining lymph nodes of intact and thymectomized mice, 671
Serine esterase, requirement for function in complement-dependent erythrophagocytosis, 745
Serum antibody, regulation of antibody formation by, removal of specific antibody by immunoadsorption, 1175
—, anti-lymphocyte, mechanism of action, studies of antibody eluate, 49
— from thyroidectomized donors, transfer of experimental autoimmune thyroiditis by, 263
—, immunoreactive basement membrane antigens in, 1395
—, nurse shark, specific inactivator of mammalian C'4 isolated from, 217
Skin, changes, induction and recall in contact sensitivity, 671
Species specificity of leukocytic pyrogens, 707
Specific antibody, removal by immunoadsorption, 1175
— pneumococcal polysaccharide, type III, anamnestic antibody response, 77
Specificity, species, of leukocytic pyrogens, 707
Spermatogenesis, inhibition, immunological effects of thermal injury, 1411
Spleen cells, immunocompetence conferred in vitro by syngeneic thymus extract, 765
— cells in vitro, nonprimed and primed, cellular requirements for immune response by, 345
— cells, transfer of immune responsiveness by, 1107
Stem cells, hemopoietic, differing in capacity for self-renewal, physical separation, 91
Streptococci, electron microscopic studies, M antigen, 1063
—, hemolytic, biological properties of cell wall mucopeptide, 31
Syngeneic thymus extract, immunocompetence of spleen cells conferred in vitro by, 765

THERMAL injury, immunological effects, inhibition of spermatogenesis, 1411

Thoracic duct lymphocytes involved in primary antibody responses, 895
Thymectomized mice, changes in skin and draining lymph nodes, induction and recall in contact sensitivity, 671
— mice, neonatal, immunocompetence of spleen cells conferred in vitro by syngeneic thymus extract, 765
Thymic antigen-reactive cells, antigen requirements and proliferation, 1243
— antigen-reactive cells, lack of class differentiation, 467
Thymomas, functional, influence on restoration after thymectomy, 809
Thymus, carcinogen-induced tumors of, 809
Thymus cells, transferred, immune response elicited by, 1243
— extract, syngeneic, immunocompetence of spleen cells conferred in vitro by, 765
—, responses to immunization, 1161
—, whole organ grafts, effects, 847
Thyroglobulin, effect of its proteolytic degradation on production of autoimmune thyroiditis, 243
Thyroidectomized donors, transfer of experimental autoimmune thyroiditis by serum from, 263
Thyroiditis, autoimmune, role of mycobacteria and effect of proteolytic degradation of thyroglobulin on production of, 243
—, experimental autoimmune, transfer by serum from thyroidectomized donors, 263
Tissue, kidney, evidence of production of humoral hypertensinogenic factor, 1353
Tissue protease, C3 leukotactic factor produced by, 505
Tracer, horseradish peroxidase, in ultrastructural studies of experimental nephrosis, 381
Transfer, passive, of cell mediated immunity, effect of cytotoxic agents, 17
Tubercle bacillus and humoral antibodies, binding between components, 931
Tumors of thymus, carcinogen-induced, humoral influences of normal thymus and functional thymomas and influence of postthymectomy period on restoration, 809

ULTRASTRUCTURAL studies in experimental nephrosis using horseradish peroxidase as tracer, 381
Ultrastructure of papain and pepsin digestion fragments of human IgM globulins, 691
Urine, immunoreactive basement membrane antigens in, 1395

VIABILITY, lasting biological effects of early environmental influences, 963
Viral antigen, in vivo viral replication and host antibody response, 575
— replication and host antibody response to viral antigen, 575
Virus infection, effect of experimentally induced changes in nasal mucous secretory systems, 105, 121
—, Newcastle disease, effects on adsorption by experimentally induced changes in nasal mucous secretory systems, 121

XENOGENEIC lymphocytes, differing responses of normal lymphoid cells, 1187